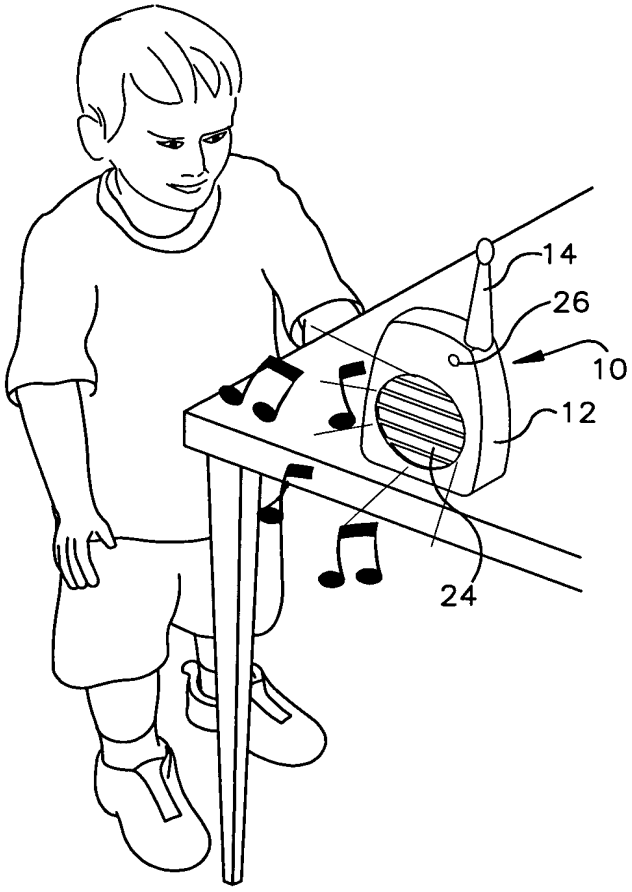

Figure 1

Figure 2

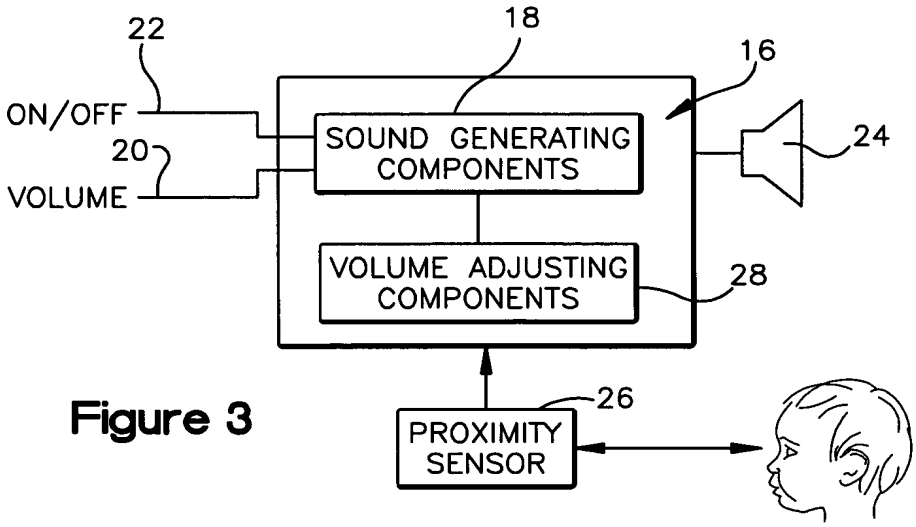

Figure 3

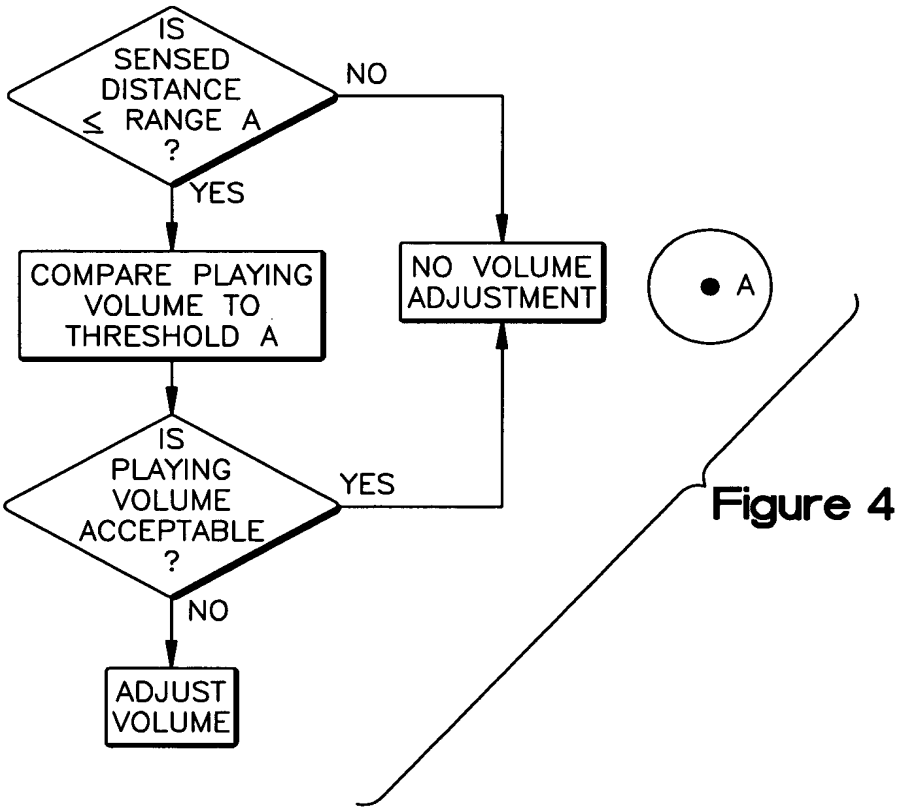

Figure 4

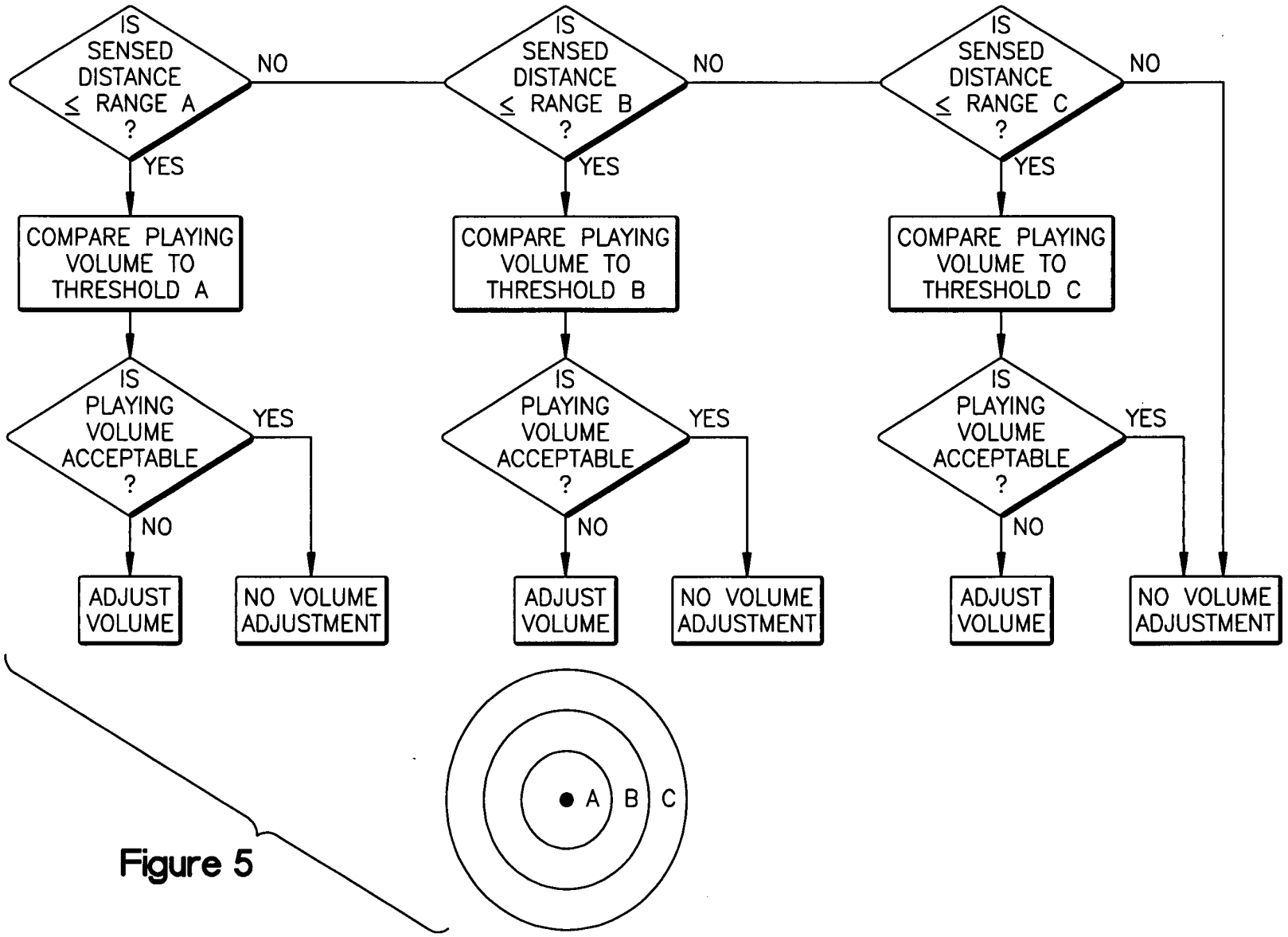
IS SENSED DISTANCE ≤ RANGE A ?
NO
YES
COMPARE PLAYING VOLUME TO THRESHOLD A
IS PLAYING VOLUME ACCEPTABLE ?
YES
NO
ADJUST VOLUME
NO VOLUME ADJUSTMENT
IS SENSED DISTANCE ≤ RANGE B ?
NO
YES
COMPARE PLAYING VOLUME TO THRESHOLD B
IS PLAYING VOLUME ACCEPTABLE ?
YES
NO
ADJUST VOLUME
NO VOLUME ADJUSTMENT
IS SENSED DISTANCE ≤ RANGE C ?
NO
YES
COMPARE PLAYING VOLUME TO THRESHOLD C
IS PLAYING VOLUME ACCEPTABLE ?
YES
NO
ADJUST VOLUME
NO VOLUME ADJUSTMENT
A
B
C

Figure 5

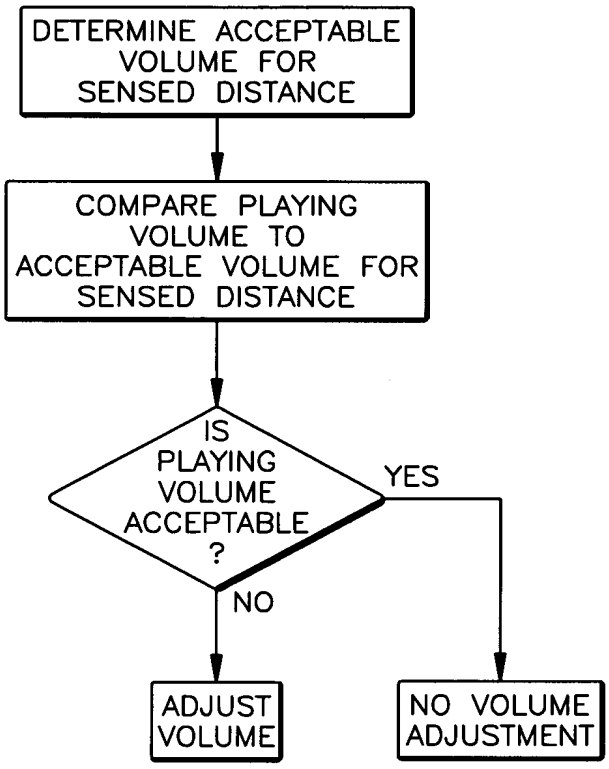
DETERMINE ACCEPTABLE VOLUME FOR SENSED DISTANCE
COMPARE PLAYING VOLUME TO ACCEPTABLE VOLUME FOR SENSED DISTANCE
IS PLAYING VOLUME ACCEPTABLE ?
YES
NO
ADJUST VOLUME
NO VOLUME ADJUSTMENT

Figure 6